

CLAIMS

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is as follows:

- 1 1. A device for producing synthetic fiber materials, with a polymer
2 melt feed leading to a rotating hollow reactor, whose wall can be heated and
3 which widens conically in order to guide a film melt toward an open side that
4 can be closed with a lid, and with ribs for dividing the melt film into fibers
5 that grow rigid after leaving the hollow reactor, wherein the hollow reactor is
6 vertically oriented and exhibits on its curved upper side an opening for
7 introducing the polymer melt, while a rotating distributor plate is positioned
8 opposite the opening, at a slight distance from the inner wall of the hollow
9 reactor.
- 1 2. A device according to claim 1, wherein the distance between the
2 distributor plate and the inner wall of the hollow reactor can be adjusted.
- 1 3. A device according to claim 1, wherein the distributor plate exhibits
2 a surface that faces the opening and that rises toward the rim.
- 1 4. A device according to claim 3, wherein the distributor plate exhibits
2 an upper side that curves in concave fashion and faces the opening.
- 1 5. A device according to claim 1, wherein a truncated cone whose outer
2 diameter is smaller than the diameter of the distributor plate is positioned on
3 said distributor plate.

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1 6. A device according to claim 5, wherein the diameter of the truncated
2 cone is on the same order of magnitude as the diameter of the opening of the
3 feed.

1 7. A device according to claim 1, wherein the inner wall of the hollow
2 reactor is parabolic in shape.

1 8. A device according to claim 1, wherein the ribs on the inner wall of
2 the hollow reactor run vertical to the rim in the lower area.

1 9. A device according to claim 1, wherein the hollow reactor, together
2 with a surrounding container, forms a curved gap, to which a steam feed and a
3 steam outlet are attached.

1 10. A device according to claim 9, wherein the steam feed and the
2 steam outlet are positioned on the upper and lower rim of the hollow reactor.

1 11. A device according to claim 9, wherein the steam is guided through
2 the gap in circulating fashion.

1 12. A device according to claim 11, wherein the steam is conducted
2 through the curved gap in the same direction as the melt flowing as a film on
3 the inner wall of the hollow reactor.

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